

**THE TECHNICAL REPORT**  
**ON**  
**SIWES TRAINING EXERCISE**  
**AT**  
**LASUCO BUA SUGAR COMPANY EDU LAFIAGI KWARA**  
**STATE**

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**SUBMITTED TO**  
  
**DEPARTMENT OF SURVEYING AND GEOINFORMATICS**  
**SCHOOL OF ENVIRONMENTAL STUDIES**  
**KWARA STATE POLYTECHNIC ILORIN**  
**KWARA STATE**

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## **DEDICATION**

I dedicate this practical report to God Almighty who created heaven and earth. And all the staffs of LASUCO Sugar Company and Department of Surveying.

## **PREFACE**

This report is based on SIWES Training Exercise practical carried out at LASUCO Bua Sugar Company Edu Lafiagi Kwara State as a whole, this started on the 1stAugust 2024–15<sup>th</sup> November 2024.This contain all method of As-built Survey, topography survey, grouting levelling, field work.

## **ACKNOWLEDGEMENT**

I give thanks to God Almighty for his grace, strength and blessing toward the completion of the SIWES Training exercise. My sincere appreciation goes to the department of surveying, Agric department, Staffs of **LASUCO BUA** Sugar Company. Appreciation goes to my parents for their financial and spiritual support throughout the SIWES Training exercise. And for my relatives may God bless you all.

## **CERTIFICATION**

I, **Idris Abdullahi Umar** hereby certify that this SIWES Training Exercise was written by me and all information given in this practical report are obtained from field measurement and observation, and I also ensured that all information contained in this report is in accordance with surveying rules and regulation and department instruments.

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**Student Name**

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**Signature/Date**

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**Supervisor Name**

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**Signature/Date**

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**H.O.D Name**

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**Signature/Date**

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# CHAPTER ONE

## INTRODUCTION TO SIWES

The student industrial experience scheme (SIWES) is a skills training programme designed to expose and prepare students of universities, polytechnic/colleges of technology/colleges of Agriculture and colleges of education for the industrial work situation they are likely to meet after graduation.

## HISTORY OF SIWES

SIWES was founded in 1973 by ITF (Industrial Training Funds) to address the problem of tertiary institution graduates' lack of appropriate skills for employment in Nigerian industries. The Students' Industrial Work Experience Scheme (SIWES) was founded to be a skill training programme to help expose and prepare students of universities, Polytechnics and colleges of education for the industrial work situation to be met after graduation.

This system facilitates the transfer from the classroom to the workplace and aids in the application of knowledge. The program allows students to become acquainted with and exposed to the experience required in handling and operating equipment and machinery that are typically not available at their schools.

Prior to the establishment of this scheme, there was a rising concern and trend among industrialists that graduates from higher education institutions lacked appropriate practical experience for employment. Students who entered Nigerian universities to study science and technology were not previously trained in the practical aspects of their chosen fields. As a result of their lack of work experience, they had difficulty finding work.

As a result, employers believed that theoretical education in higher education was unresponsive to the needs of labor employers. Thousands of Nigerians faced this difficulty till 1973. The fund's main motivation for establishing and designing the scheme in 1973/74 was launched against this context.

The ITF (Industrial Training Fund) organization decided to aid all interested Nigerian students and created the SIWES program. The federal government officially approved and presented it in 1974. During its early years, the scheme was entirely supported by the ITF, but as the financial commitment became too much for the fund, it withdrew in 1978. The National Universities Commission (NUC) and the National Board for Technical Education (NBTE) were given control of the scheme by the federal government in 1979. The federal government handed over supervision and implementation of the scheme to ITF in November 1984. It was taken over by the Industrial Training Fund (ITF) in July 1985, with the federal government bearing entire responsibility for funding.

## **OBJECTIVES OF SIWES**

The Industrial Training Fund's Policy Document No. 1 of 1973 which established SIWES outlined the objectives of the scheme as:

- Provide an avenue for students in Institutions of higher learning to acquire industrial skills and experience in their respective courses of study.
- Prepare students for the Industrial Work situation they are likely to experience after graduation.
- Expose students to work methods and techniques of handling equipment and machinery that may not be available in their Institutions.
- Make the transition from school to the world of work easier; and enhance students' networks for later job placements.



- Provide students with an opportunity to apply their knowledge to real work situations, thereby bridging the gap between theory and practice; and
- Enlist and strengthen Employers' involvement in the entire educational process; thereby preparing the students for employment in Industry and Commerce.

## **FUNCTIONS/ ACTIVITIES OF MTU SIWES CENTRE**

1. Develop, implement, and regularly review guidelines for SIWES.
2. Registration of eligible students for Industrial Training (IT).
3. Compilation of list of students from different Colleges for SIWES.
4. Timely collection, completion, and submission of all ITF forms/ documents (master list, placement list, direct e-payment form, ITF form 8) to the supervising ITF office.
5. Identify placement opportunities for students and assist in the placement of students on attachment with employers.
6. Issue introductory letters to students for the employers.
7. Organize orientation programmes for all students going for IT in collaboration with ITF
8. Ensure that students have all required documents for successful placement and completion of IT training before embarking on SIWES.
9. Ensure the master placement list is timely prepared and submitted to the Industrial Training Fund and National Universities Commission yearly (not later than 3 months before the commencement of Industrial Attachment).
10. Organize and coordinate supervisory visits to students at I. T. sites.
11. Ensure students' SIWES logbooks are examined, vetted, and signed by University Supervisors, Industry-based Supervisors, and ITF staff.

12. Effectively follow up ITF on all payments to students and the University.
13. Capture student's bank details at the point of registration for SIWES.
14. Develop and sustain the right attitude and mindset among supervisors thus motivating them to effectively play their supervisory role to the maximum benefit of students during SIWES.
15. Prepare and submit reports on the scheme to the ITF after the programme.
16. Resolve problems arising from Industrial Training during and after the training.
17. Develop and track relevant data on students' SIWES to facilitate the development of a SIWES database for the University.
18. Ensure accreditation of MTU SIWES Center by NUC.
19. Work with relevant Colleges/ Departments to ensure accreditation of courses for approved SIWES programme.
20. Liaise and build a good relationship between the University and relevant organizations (NUC, ITF, Industries, etc.).

## **INTRODUCTION TO LASUCO BUA SUGAR COMPANY**

Lam son sugar cane joint stock corporation (Lasuco) former known as Lasuco sugar factory (31/03/1980) was established on 6<sup>th</sup> December 1999 .with over 35 year experience in operation and production of sugar cane and agricultural products for Vietnam and the world , Lasuco always expect to bring the consumers with the leading quality for their health safety. In addition, the corporation would love to enhance the quality of life and contribute to economic development.

Lasuco is the pioneer in applying new technologies on production and cultivation. Our corporations have been continuously. changing for better match and creating

values for customers as well as the community. With over 100 directors,engineers ,100% of skilled workers, and over 50% of high –grade workers are well trained for profession acknowledge, research works together with Vietnamese academy of agricultural sciences (VASS) And co-operation projects with the great countries such as Israel, Japan Korea, the corporation take advantage of integration for obtaining high productivity and quality and also expect to enhance our country image for sugar cane industry and agricultural products.

## **HISTORY OF BUA**

Abdulsamad Rabiou established BUA international limited in 1988 for the sole purpose of commodity trading. The company imported rice, edible oil, flour, iron and steel. In 1990 the government , which owned Delta steel company, contracted with BUA to supply its raw materials in exchange for finished products.

Abdulsamad Rabiou is a Nigerian billionaire business person who was given birth on the 4<sup>th</sup> of August 1960 into a wealth family in his home town Kano State.

Abdulsamad Rabiou is the founder of BUA Group, a Nigerian conglomerate active in cement production, sugar refining and real & state.

## CHAPTER TWO

### 2.0 GROUTING LEVELLING

Grouting is a process in construction and DIY projects that involves filling gaps or spaces between tiles, stones, or other materials with a mixture of cement, sand, and water. This is done to:

1. Fill gaps and joints
2. Provide additional structural support
3. Prevent water or moisture from seeping through
4. Enhance the overall appearance of the surface

*There are different types of grout, including:*

1. Cement-based grout
2. Epoxy-based grout
3. Acrylic grout
4. Furan grout

Each type has its own advantages and disadvantages, and the choice of grout depends on the specific project requirements and conditions.

### 2.1 CEMENT-BASED GROUT

Cement-based grout is a type of grout made from a mixture of cement, sand, and water. It's commonly used for filling gaps between tiles, concrete, and other masonry materials. Here are some key characteristics and uses of cement-based grout:



### **2.1.1 CHARACTERISTICS**

1. Strength: Cement-based grout is relatively strong and durable, making it suitable for high-traffic areas.
2. Water resistance: It has good water resistance, but not waterproof, so it's not ideal for areas with constant water exposure.
3. Shrinkage: Cement-based grout can shrink over time, which may lead to cracks.

### **2.1.2 USES**

1. Tile installation: Cement-based grout is often used for filling gaps between tiles, especially for ceramic, porcelain, and natural stone tiles.
2. Concrete repairs: It can be used to repair cracks and holes in concrete surfaces.
3. Masonry applications: Cement-based grout is suitable for filling gaps between bricks, blocks, and other masonry materials.

#### **Types of Cement-Based Grout**

1. Non-shrink grout: Contains additives that reduce shrinkage.
2. Fast-set grout: Sets quickly, ideal for time-sensitive projects.
3. Epoxy-modified grout: Contains epoxy resin for improved durability and stain resistance.

#### ***Mixing and Application***

1. Mix with water: Typically mixed with water to achieve the desired consistency.
2. Apply with grout float: Applied using a grout float to spread and press the grout into the gaps.

#### ***Precautions***

1. Protect surrounding surfaces: Use tape or sealers to protect surrounding surfaces from stains.
2. Avoid over mixing: Mix only what's needed, as excess grout can be difficult to clean.
3. Clean tools and surfaces: Clean tools and surfaces promptly to avoid grout drying on them.

### **2.1.3 EPOXY-BASED GROUT**

Epoxy-based grout is a type of grouting material used to fill gaps between tiles, concrete, and other surfaces. Here are some key benefits and characteristics:

#### **2.1.4 BENEFITS**

1. Durability: Epoxy-based grout is highly resistant to wear and tear, chemicals, and stains.
2. Water resistance: It's ideal for areas exposed to water, such as bathrooms, kitchens, and swimming pools.
3. Low maintenance: Epoxy-based grout is easy to clean and maintain.
4. Flexibility: It can accommodate slight movements between surfaces.

#### **Characteristics**

1. Composition: A mixture of epoxy resin, hardener, and aggregate (sand or silica).

## **CHAPTER THREE**

### **3.0 WHAT IS A SURVEY?**

Surveying can be defined as science, art, mapping and technology of making measurements [usually angular and linear measurements] of the relative positions of natural and artificial [man-made] feature on the earth's surface and the presentation of these information whether graphically or numerically i.e. in form of plans or maps

#### **What types of surveys are there?**

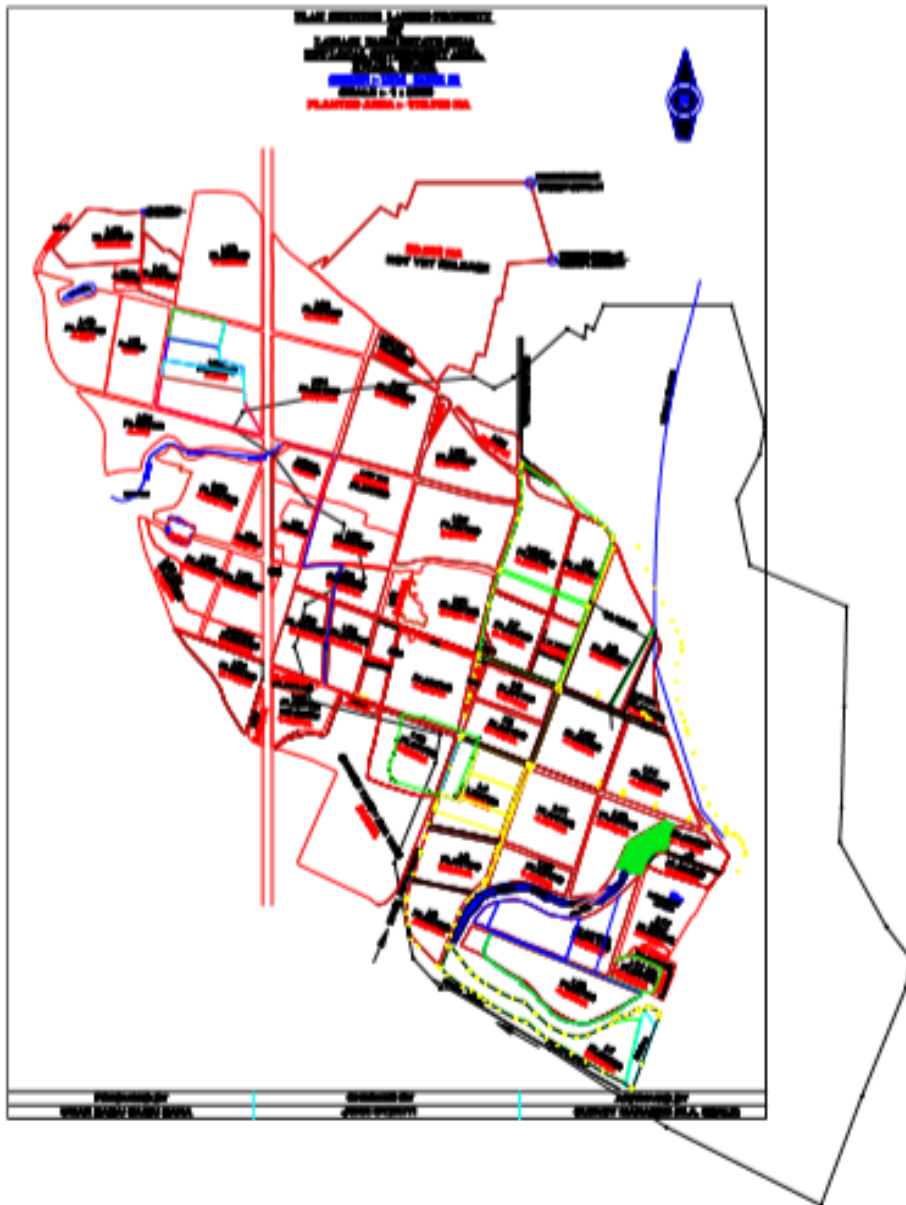
There are four modes of surveys that are commonly used.

1. Cadastral surveying
2. Engineering surveying
3. Hydrographic surveying
4. Topographic surveying

While surveys vary widely in how they're conducted, there are number of common components. Many of this features have been studied in extensive details by survey methodologists, psychologists, statisticians, and in many other fields of research

## INSTRUMENT USE

1. Hand held G.P.S
2. Differential G.P.S



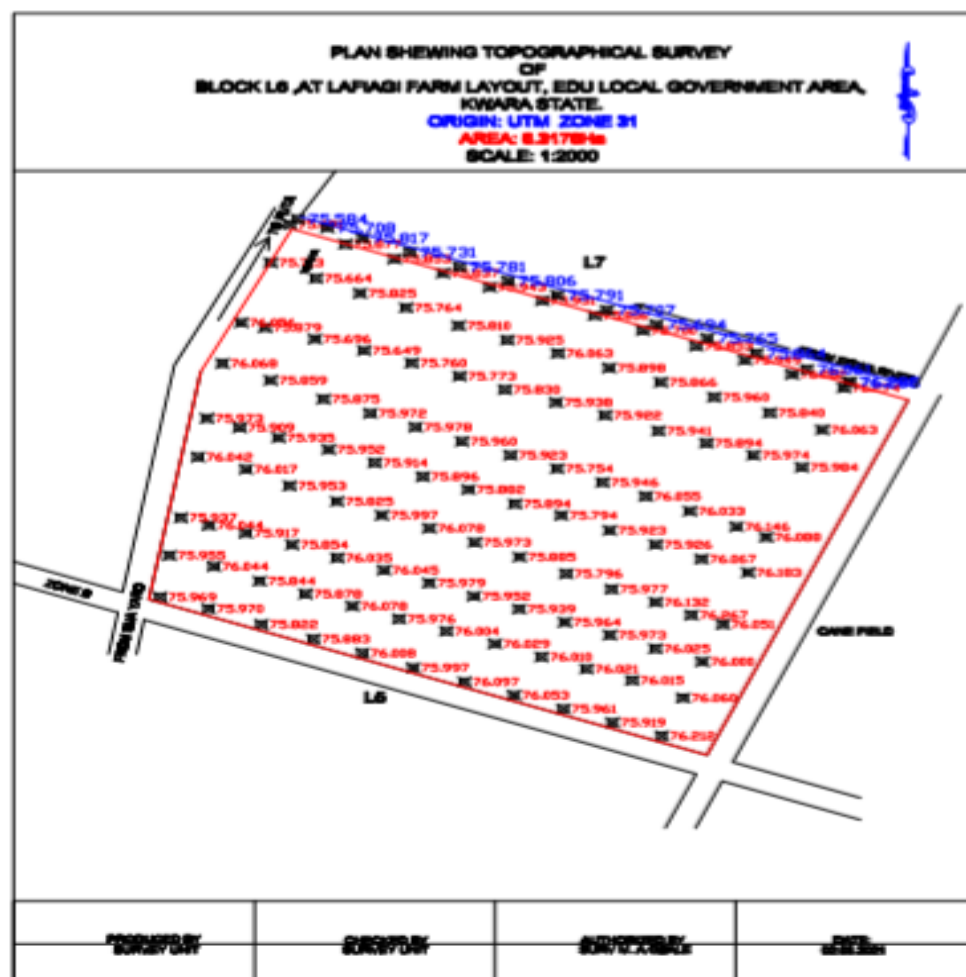


- Topographic survey locates all survey feature of a property and image all natural features and elevation. It shows there location, size, height and any changes in elevation.

Topographic survey carried out at block L6, Atlafiagi farm layout, Edu local government area kwara state.

## INSTRUMENT USE

1. Total station
2. Differential G.P.S



Irrigation is the artificial application of water to the soil through various system of tubes, pumps and sprays. Irrigation is usually used in where rainfall is Irregular or dry term or drought is expected.

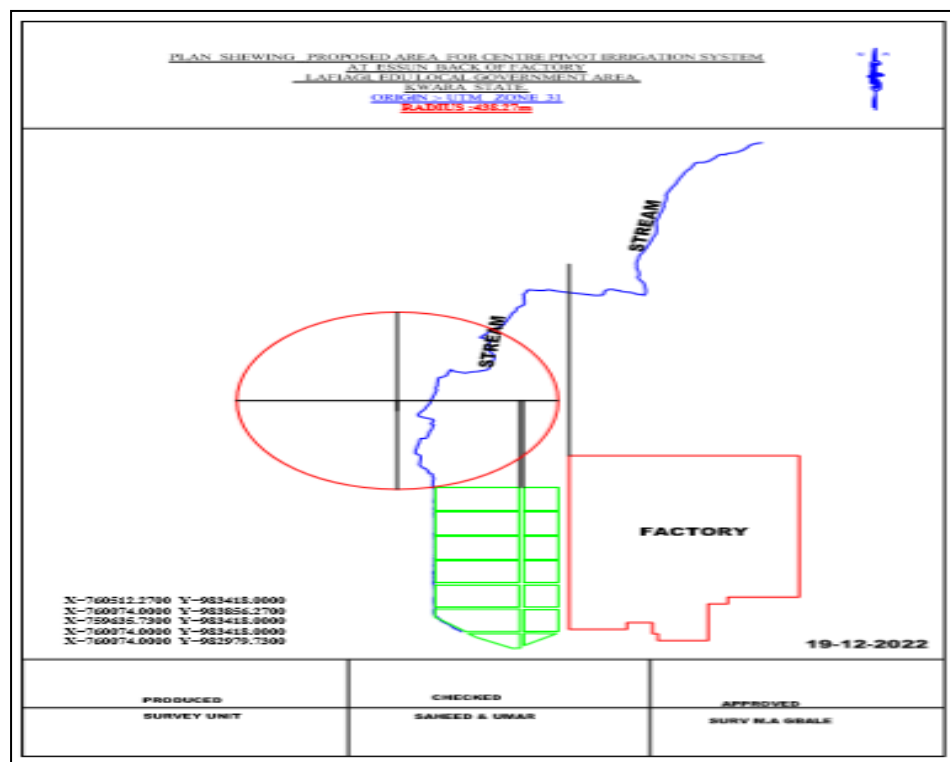
Surface irrigation refers to system that that deliver water to crops using a gravity fed, over land flow of water.

Centre pivot Irrigation system is a movable pipe structure that rotates around a central pivot point connected to a water supply. Centre pivot Irrigation system are the most popular sprinkler irrigation system in the world because of their high efficiency, high uniformity, ability to irrigate uneven terrain.

Centre pivot irrigation system carried out at Essun Bank of factory Lafiagi, Edu local government area kwara state.

## **INSTRUMENT USE**

1. Differential G.P.S
2. Hand held G.P.S



## **PROBLEM ENCOUNTERED**

- The instrument kept on floating due to bad weather condition, which slowed down our work.
- We had to carry some taskforce officials to the site with us for protection from thugs.
- Due to heavy rainfall the canal over flowed into some of the properties, which we had to swim across dirty water reaching our waist to establish some of the points.
- Also we had difficulties in cutting of lines due to the fact that we had to cut down lots of trees and sharp piercing bushes.
- We suffered bad weather during the period of this survey and it caused poor GPS reception.
- The plot was located in a swampy area which we had to swim across to confirm the boundary point, which we had to be very careful because of wild animals like snakes, crocodile e t c.
- We had to spray the water with some chemicals to avoid being bitten by those animals.

## **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

### **SUMMARY**

Lasuco sugar cane joint stock corporation (Lasuco) former known as Lasuco sugar factory (31/03/1980) was established on 6<sup>th</sup> December 1999 .with over 35 year experience in operation and production of sugar cane and agricultural products for Vietnam and the world , Lasuco always expect to bring the consumers with the leading quality for their health safety. In addition, the corporation would love to enhance the quality of life and contribute to economic development.

### **CONCLUSION**

Conclusively, Student industrial experience scheme (SIWES) is a skills training program designed to expose and prepare students of universities, polytechnic/colleges of technology/colleges of Agriculture and colleges of education for the industrial work situation they are likely to meet after graduation.

## **RECOMMENDATION**

I use this means to provide the following recommendations concerning training of students industrial training attachments:

I would like to suggest that a fund should be set with the charitable aim of providing trainings to individuals about construction labors in other to generate a pool of unskilled labors with basic knowledge and communication skills. I recommend that the Industrial training fund (ITF) should provide stipends to SIWES students during their programs rather than after. This will help students to counter some financial issues that might arise during the program e.g. Transportation.